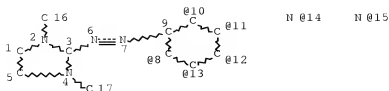


=> d que

L7 STR



VPA 14-10/11/12/13/8 U

VPA 15-10/11/12/13/8 U

NODE ATTRIBUTES:

NSPEC IS RC AT 16

NSPEC IS RC AT 17

DEFAULT MLEVEL IS ATOM

DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

L11 39 SEA FILE=REGISTRY SSS FUL L7

L14 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L11

=> d l14 1-5 ibib ed abs hitstr hitind

L14 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1357157 HCAPLUS Full-text

DOCUMENT NUMBER: 146:106783

TITLE: Mixtures of sulfide dyes for coloring of hair

INVENTOR(S): Cremer, Christian; Eliu, Victor Paul; Wallquist, Olof

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.; Froehling, Beate

SOURCE: PCT Int. Appl., 187pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

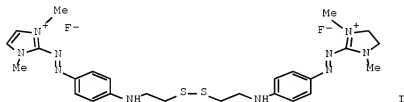
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006136617	A2	20061228	WO 2006-EP66325	20060913
WO 2006136617	A3	20080327		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,				

10/594,047

IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
 TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
 ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
 EP 1937780 A2 20080702 EP 2006-793484 20060913
 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,
 IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK,
 TR, AL, BA, HR, MK, RS

KR 2008056189 A 20080620 KR 2008-708245 20080404
 PRIORITY APPLN. INFO.: EP 2005-109445 A 20051011
 WO 2006-EP66325 W 20060913

OTHER SOURCE(S): MARPAT 146:106783
 ED Entered STN: 29 Dec 2006
 GI



AB Mixts. selected from aromatic mercaptans, disulfides, thioesters, and benzylidenethienoquinolizines are useful for dyeing hair shades that exhibit good fastness to washing, light, and rubbing. A typical azo dye I was manufactured by reaction of diazotizing 4-fluoroaniline, coupling of the resulting diazonium salt with imidazole, and quaternizing the resulting azo compound with di-Me sulfate, exchanging the sulfate ions of the resulting azo compound with chloride ions, and reacting the resulting azo compound with cysteamine hydrochloride.

IT 866487-93-6P 866487-95-8P 866487-97-0P
 (mixts. of aromatic mercaptans, aromatic disulfides, and arom thioesters for coloring of hair shades that exhibit good fastness to washing, light, and rubbing)

RN 866487-93-6 HCAPLUS

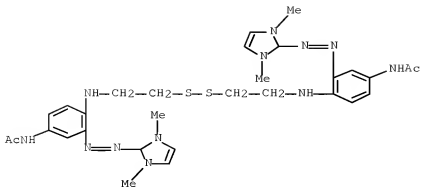
CN 1H-Imidazolium, 2-[2-[5-(acetylamino)-2-[[2-[[2-[[4-(acetylamino)-2-[2-(1,3-dimethyl-1H-imidazolium-2-yl)diazenyl]phenyl]amino]ethyl]dithio]ethyl]amino]phenyl]diazanyl]-1,3-dimethyl-, methyl sulfate (1:2) (CA INDEX NAME)

CM 1

CRN 866487-92-5

CMF C30 H40 N12 O2 S2

10/594,047



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me—O—SO₃⁻

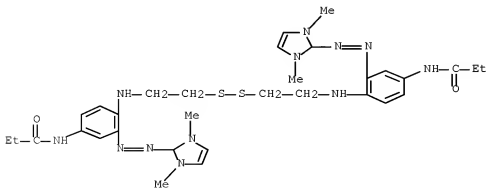
RN 866487-95-8 HCAPLUS

CN 1H-Imidazolium, 2,2'-[dithiobis[2,1-ethanediylimino[5-[(1-oxopropyl)amino]-2,1-phenylene]-2,1-diazenediyl]]bis[1,3-dimethyl-, methyl sulfate (1:2) (CA INDEX NAME)

CM 1

CRN 866487-94-7

CMF C32 H44 N12 O2 S2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

10/594,047

CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me—O—SO₃⁻

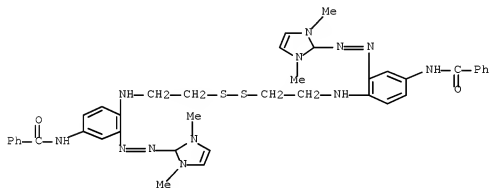
RN 866487-97-0 HCAPLUS

CN 1H-Imidazolium, 2-[2-[5-(benzoylamino)-2-[[2-[[2-[[4-(benzoylamino)-2-[2-(1,3-dimethyl-1H-imidazolium-2-yl)diazeryl]phenyl]amino]ethyl]dithio]ethyl]amino]phenyl]diazeryl]-1,3-dimethyl-, methyl sulfate (1:2)
(CA INDEX NAME)

CM 1

CRN 866487-96-9

CMF C40 H44 N12 O2 S2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me—O—SO₃⁻

IC ICM C09B

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 25, 27, 41

IT 41261-03-4P 84034-79-7P 627906-89-2P 627906-90-5P 866487-90-3P
866487-91-4P 866487-93-6P 866487-95-8P
866487-97-0P 866487-99-2P 910616-45-4P 911215-80-0P
911216-78-9P 911216-99-4P 911223-14-8P 911223-39-7P

911237-54-2P	911237-94-0P	911238-02-3P	911238-50-1P
911238-54-5P	911239-17-3P	911320-40-6P	911320-44-0P
911320-53-1P	911321-12-5P	911321-16-9P	911496-12-3P
911708-13-9P	911708-32-2P	911708-75-3P	911709-90-5P
911710-01-5P	911710-64-0P	911710-73-1P	911711-61-0P
911711-71-2P	911711-76-7P	911711-78-9P	911712-19-1P
911712-31-7P	911713-03-6P	911713-07-0P	911713-16-1P
911713-61-6P	911713-64-9P	911713-93-4P	911714-09-5P
911714-11-9P	911714-54-0P	911714-56-2P	911715-78-1P
917082-86-1P	917485-23-5P	917485-24-6P	917775-70-3P
917775-71-4P	917775-72-5P	917775-74-7P	917775-75-8P
917775-76-9P	917775-77-0P	917775-78-1P	917775-79-2P
917775-81-6P	917775-83-8P	917775-85-0P	917775-86-1P
917775-87-2P	917775-90-7P		

(mixts. of aromatic mercaptans, aromatic disulfides, and arom thioesters
for coloring of hair shades that exhibit good fastness to washing,
light, and rubbing)

L14 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:579940 HCAPLUS Full-text

DOCUMENT NUMBER: 145:69341

TITLE: Symmetric diazo compounds containing 2-imidazolium
groups and cationic bond chains for use in hair
dyes

INVENTOR(S): David, Herve; Greaves, Andrew; Daubresse, Nicolas

PATENT ASSIGNEE(S): L'Oreal, Fr.

SOURCE: Fr. Demande, 52 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

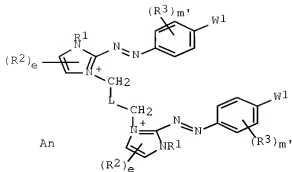
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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FR 2879199	A1	20060616	FR 2004-53005	20041215
FR 2879199	B1	20070202		
CN 1800165	A	20060712	CN 2005-10104738	20051214
EP 1679312	A2	20060712	EP 2005-292692	20051214
EP 1679312	A3	20060719		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
JP 2006188508	A	20060720	JP 2005-361088	20051214
MX 2005PA13634	A	20070117	MX 2005-PA13634	20051214
KR 2006067916	A	20060620	KR 2005-124190	20051215
US 20060156490	A1	20060720	US 2005-300512	20051215
BR 2005005899	A	20060919	BR 2005-5899	20051215
PRIORITY APPLN. INFO.:			FR 2004-53005	A 20041215
			US 2005-681460P	P 20050517

OTHER SOURCE(S): MARPAT 145:69341

ED Entered STN: 16 Jun 2006

GI



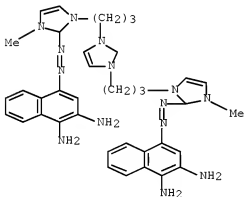
I

AB Sym. diazo cationic compds. I (W1 = hydrogen, halogen, NR5R6, OR7, NR4-Ph-NR5R6, NR4-Ph-OR7, O-Ph-OR7, O-Ph-NR5R6; L = cationic chains, C2-40 alkyl), their acid salts and solvates are claimed for use in hair dyes. Bis[(p-methoxyphenylazido-3-methylimidazolium)propane] imidazolium bromide (II) was prepared by the reaction of p-methoxyphenylazido-3-methylpyridiniumpropyl bromide with 1,3-dibromopropane. A solution containing 5.10-4 mol of II, pH = 9-10, was applied on hair for 30 min, the hair was then washed and dried to obtain an orange color.

IT 890658-12-5D, salts 890658-18-1D, salts
(sym. diazo compds. containing imidazolium groups and cationic bond
chains for use in hair dyes)

RN 890658-12-5 HCAPLUS

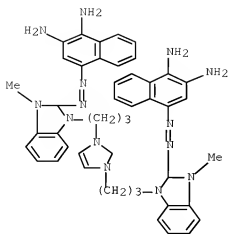
CN 1H-Imidazolium, 1,3-bis[3-[2-[2-(3,4-diamino-1-naphthalenyl)diazenyl]-1-methyl-1H-imidazolium-3-yl]propyl]- (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 890658-18-1 HCAPLUS

1H-Benzimidazolium, 2-[2-(3,4-diamino-1-naphthalenyl)diazeryl]-3-[3-[1-
[3-[2-[2-(3,4-diamino-1-naphthalenyl)diazeryl]-1-methyl-1H-
benzimidazolium-3-yl]propyl]-1H-imidazolium-3-yl]propyl]-1-methyl-
(CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 27

IT 123-30-8, p-Aminophenol 612-76-0, m-Diphenol 890657-91-7D, salts
 890657-92-8D, salts 890657-93-9D, salts 890657-94-0D, salts
 890657-95-1D, salts 890657-96-2D, salts 890657-97-3D, salts
 890657-98-4D, salts 890657-99-5D, salts 890658-00-1D, salts
 890658-01-2D, salts 890658-02-3D, salts 890658-03-4D, salts
 890658-04-5D, salts 890658-05-6D, salts 890658-06-7D, salts
 890658-07-8D, salts 890658-08-9D, salts 890658-09-0D, salts
 890658-10-3D, salts 890658-11-4D, salts 890658-12-5D,
 salts 890658-13-6D, salts 890658-14-7D, salts 890658-15-8D,
 salts 890658-16-9D, salts 890658-17-0D, salts 890658-18-1D
 , salts 890658-19-2D, salts 890658-20-5D, salts 890658-21-6D,
 salts

(sym. diazo compds. containing imidazolium groups and cationic bond
 chains for use in hair dyes)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L14 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1223755 HCAPLUS Full-text

DOCUMENT NUMBER: 145:14068

TITLE: Sulfide hair dyes

AUTHOR(S): Anon.

CORPORATE SOURCE: USA

SOURCE: IP.com Journal (2005), 5(10B), 24 (No.

IPCOM000130141D), 13 Oct 2005

CODEN: IJPOBX; ISSN: 1533-0001

PUBLISHER: IP.com, Inc.

DOCUMENT TYPE: Journal; Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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IP 130141D		20051013	IP 2005-130141D	20051013
PRIORITY APPLN. INFO.:			IP 2005-130141D	20051013

ED Entered STN: 18 Nov 2005

AB Sulfide dyes and dyeing compns. are disclosed. The sulfide dyes are selected from anionic, cationic, neutral, amphoteric and zwitterionic dyes, and are preferably derived from compds. such as anthraquinones, acridines, azomethines, benzodifuranones, coumarins, diketopyrroles, diphenylmethanes, indigoids, naphthaquinones, merocyanines, oxazines, pyrenequinones, phthalocyanines, phenazines, and thioxanthenes. The dyes which can be used as single components or as mixts. of 2 or more components of the same or different dye classes are useful for the dyeing of organic materials, such as hair fibers, preferably human hair.

IT 866487-93-6P
(preparation of disulfides for use in hair dyes)

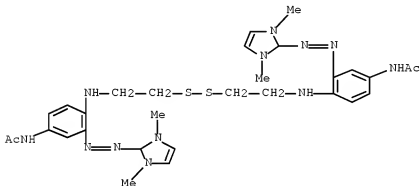
RN 866487-93-6 HCAPLUS

CN 1H-Imidazolium, 2-[2-[5-(acetylamino)-2-[[2-[[2-[[4-(acetylamino)-2-[2-(1,3-dimethyl-1H-imidazolium-2-yl)diazenyl]phenyl]amino]ethyl]dithio]ethyl]amino]phenyl]diazenyl]-1,3-dimethyl-, methyl sulfate (1:2) (CA INDEX NAME)

CM 1

CRN 866487-92-5

CMF C30 H40 N12 O2 S2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

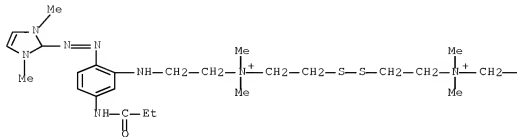
IT 866488-09-7P
(preparation of disulfides for use in hair dyes)

RN 866488-09-7 HCAPLUS

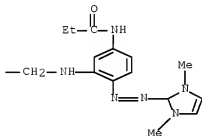
CN 1H-Imidazolium, 2,2'-[dithiobis[2,1-ethanediy] (dimethyliminio)-2,1-ethanediy]imino[4-[(1-oxopropyl)amino]-2,1-phenylene]azo]]bis[1,3-

dimethyl- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 41

IT 866487-90-3P 866487-93-6P 911213-21-3P 911238-54-5P
 911239-17-3P 911320-40-6P 911321-26-1P 911693-34-0P
 911713-64-9P

(preparation of disulfides for use in hair dyes)

IT 84034-79-7P 627906-90-5P 866487-91-4P 866488-00-8P
 866488-01-9P 866488-02-0P 866488-03-1P 866488-04-2P
 866488-05-3P 866488-06-4P 866488-07-5P 866488-08-6P
 866488-09-7P 911215-80-0P 911216-78-9P 911216-99-4P
 911223-14-8P 911223-39-7P 911237-54-2P 911237-94-0P
 911237-98-4P 911238-02-3P 911239-15-1P 911320-44-0P
 911320-73-5P 911321-12-5P 911689-95-7P 911690-32-9P
 911707-81-8P 911708-32-2P 911709-30-3P 911709-90-5P
 911710-01-5P 911710-64-0P 911710-73-1P 911711-61-0P
 911711-71-2P 911711-76-7P 911711-78-9P 911712-19-1P
 911712-31-7P 911713-03-6P 911713-07-0P 911713-16-1P
 911713-61-6P 911713-93-4P 911714-09-5P 911714-11-9P
 911714-54-0P 911714-56-2P 911715-78-1P

(preparation of disulfides for use in hair dyes)

L14 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:1090140 HCAPLUS Full-text
 DOCUMENT NUMBER: 143:372829

TITLE: Sulfide and disulfide dyes for use in dyeing keratin-containing fibers
 INVENTOR(S): Eliu, Victor Paul; Froehling, Beate; Kauffmann, Dominique
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
 SOURCE: Brit. UK Pat. Appl., 110 pp.
 CODEN: BAXXDU
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2412916	A	20051012	GB 2005-6757	20050404
WO 2005097051	A2	20051020	WO 2005-EP51412	20050329
WO 2005097051	A3	20051215		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1750663	AZ	20070214	EP 2005-729805	20050329
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 1997340	A	20070711	CN 2005-80018870	20050329
BR 2005008391	A	20070925	BR 2005-8391	20050329
JP 2007532513	T	20071115	JP 2007-506763	20050329
MX 2006PA11502	A	20061215	MX 2006-PA11502	20061005
IN 2006CN03719	A	20070615	IN 2006-CN3719	20061009
KR 2007006859	A	20070111	KR 2006-722193	20061025
PRIORITY APPLN. INFO.:			EP 2004-101455	A 20040408
			EP 2004-105995	A 20041123
			WO 2005-EP51412	W 20050329

OTHER SOURCE(S): MARPAT 143:372829

ED Entered STN: 12 Oct 2005

AB A method of dyeing keratin-containing fibers (such as wool and hair) comprises treating the fiber with at least one sulfide or disulfide dye (Markush structures given). 2,2'-Dithiobis(2-ethylaminophenylazo- 1,3-dimethylimidazolium)difluoride (I) dye was prepared by the reaction of 2-(p-fluorophenylazo)-1,3-dimethylimidazolium chloride derivative (preparation given) with cysteamine dihydrochloride. A solution of 0.1% I was applied on the hair for 20 min at room temperature, then rinsed and dried to obtain a red color.

IT 866487-93-6P 866487-95-8P 866487-97-UP
 866488-09-7P

(sulfide and disulfide dyes for use in dyeing keratin-containing fibers)

RN 866487-93-6 HCAPLUS

CN 1H-Imidazolium, 2-[2-[5-(acetylamino)-2-[[2-[2-[4-(acetylamino)-2-[2-

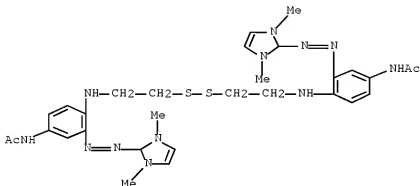
10/594,047

(1,3-dimethyl-1H-imidazolium-2-yl)diazenyl]phenyl]amino]ethyl]dithio]e
thyl]amino]phenyl]diazenyl]-1,3-dimethyl-, methyl sulfate (1:2) (CA
INDEX NAME)

CM 1

CRN 866487-92-5

CMF C30 H40 N12 O2 S2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

RN 866487-95-8 HCAPLUS

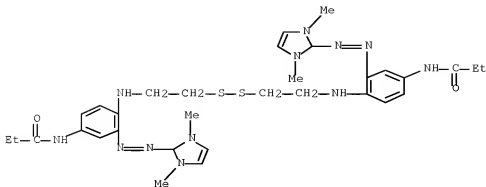
CN 1H-Imidazolium, 2,2'-[dithiobis[2,1-ethanediylimino[5-[(1-oxopropyl)amino]-2,1-phenylene]-2,1-diazenediyl]]bis[1,3-dimethyl-, methyl sulfate (1:2) (CA INDEX NAME)

CM 1

CRN 866487-94-7

CMF C32 H44 N12 O2 S2

10/594,047



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

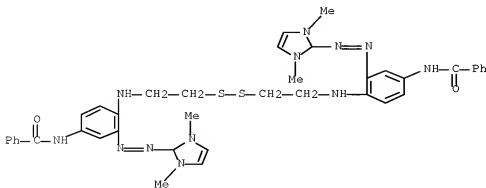
RN 866487-97-0 HCAPLUS

CN 1H-Imidazolium, 2-[2-[5-(benzoylamino)-2-[[2-[[2-[[4-(benzoylamino)-2-[2-(1,3-dimethyl-1H-imidazolium-2-yl)diazenyl]phenyl]amino]ethyl]dithio]ethyl]amino]phenyl]diazenyl]-1,3-dimethyl-, methyl sulfate (1:2)
(CA INDEX NAME)

CM 1

CRN 866487-96-9

CMF C40 H44 N12 O2 S2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 21228-90-0

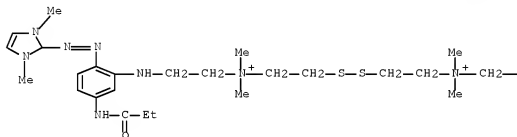
CMF C H3 O4 S

Me—O—SO₃⁻

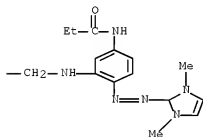
RN 866488-09-7 HCAPLUS

CN 1H-Imidazolium, 2,2'-[dithiobis[2,1-ethanediyl(dimethyliminio)-2,1-ethanediylimino[4-[(1-oxopropyl)amino]-2,1-phenylene]azo]]bis[1,3-dimethyl- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

IC ICM C09B043-40

ICS A61K007-13; C09B026-04; C09B043-00; C09B043-11; C09B043-136;
C09B044-08; C09B049-04; C09B049-06; C09B049-12; C09B067-02

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 28, 41

IT 866487-90-3P 866487-91-4P 866487-93-6P

866487-95-8P 866487-97-9P 866487-99-2P

866488-00-8P 866488-01-9P 866488-02-0P 866488-03-1P

866488-04-2P 866488-05-3P 866488-06-4P 866488-07-5P

866488-08-6P 866488-09-7P

(sulfide and disulfide dyes for use in dyeing keratin-containing fibers)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2008 ACS ON STN

ACCESSION NUMBER: 2005:1062680 HCAPLUS Full-text

DOCUMENT NUMBER: 143:352823

TITLE: 1,3-disubstituted-2-[(2-amino-5-acylaminophenyl)azo]imidazolium salts for hair dyes

INVENTOR(S): Eliu, Victor Paul; Sauder, Thomas; Kauffmann, Dominique; Froehling, Beate

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc, Switz.

SOURCE: Brit. UK Pat. Appl., 89 pp.

CODEN: BAXXDU

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2412661	A	20051005	GB 2005-5930	20050323
WO 2005095522	A2	20051013	WO 2005-EP51323	20050323
WO 2005095522	A3	20051110		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1732990	A2	20061220	EP 2005-729785	20050323
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 1965033	A	20070516	CN 2005-80018058	20050323
US 20070214580	A1	20070920	US 2006-594047	20060925
IN 2006CN03619	A	20070615	IN 2006-CN3619	20060928
KR 2007004841	A	20070109	KR 2006-721341	20061013
PRIORITY APPLN. INFO.:			EP 2004-101368	A 20040402
			WO 2005-EP51323	W 20050323

OTHER SOURCE(S): MARPAT 143:352823

ED Entered STN: 05 Oct 2005

AB Azo dyes, e.g., 1,3-disubstituted-2-[(2-amino-5-acylaminophenyl)azo]imidazolium salts, are useful for the dyeing of human hair. Thus, the above compds. are prepared and used at 0.5% in a hair dye formulation.

IT 866923-17-0P 866923-31-6P 866923-32-7P
866923-33-8P 866923-34-9P 866923-35-0P

866023-36-1P 866023-38-3P 866023-49-7P
 866023-42-9P 866023-44-1P 866023-46-3P
 866023-48-5P 866023-50-9P 866023-52-1P

((aminoacylaminophenyl)azoimidazolium salts for hair dyes)

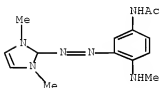
RN 866023-27-0 HCAPLUS

CN 1H-Imidazolium, 2-[2-[5-(acetylamino)-2-(methylamino)phenyl]diazenyl]-
 1,3-dimethyl-, methyl sulfate (1:1) (CA INDEX NAME)

CM 1

CRN 866023-26-9

CMF C14 H19 N6 O



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

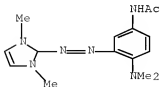
RN 866023-31-6 HCAPLUS

CN 1H-Imidazolium, 2-[2-[5-(acetylamino)-2-(dimethylamino)phenyl]diazenyl]-
 1,3-dimethyl-, methyl sulfate (1:1) (CA INDEX NAME)

CM 1

CRN 866023-30-5

CMF C15 H21 N6 O



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

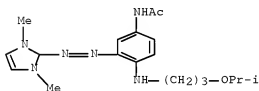
CRN 21228-90-0

CMF C H3 O4 S

Me—O—SO₃⁻

RN 866023-32-7 HCAPLUS

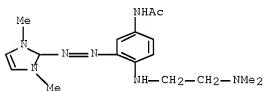
CN 1H-Imidazolium, 2-[2-[5-(acetylamino)-2-[[3-(1-methylethoxy)propyl]amino]phenyl]diazenyl]-1,3-dimethyl-, fluoride (1:1) (CA INDEX NAME)

● F⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 866023-33-8 HCAPLUS

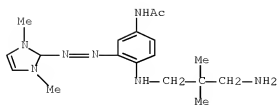
CN 1H-Imidazolium, 2-[2-[5-(acetylamino)-2-[[2-(dimethylamino)ethyl]amino]phenyl]diazenyl]-1,3-dimethyl-, fluoride (1:1) (CA INDEX NAME)

● F⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 866023-34-9 HCAPLUS

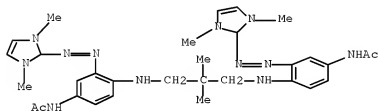
CN 1H-Imidazolium, 2-[2-[5-(acetylamino)-2-[(3-amino-2,2-dimethylpropyl)amino]phenyl]diazenyl]-1,3-dimethyl-, fluoride (1:1) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 866023-35-0 HCAPLUS

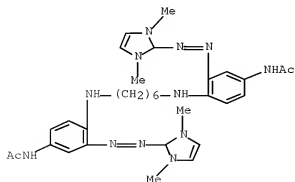
CN 1H-Imidazolium, 2,2'-[(2,2-dimethyl-1,3-propanediyl)bis(imino[5-(acetylamino)-2,1-phenylene]azo)]bis[1,3-dimethyl-, difluoride (9CI)
(CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 866023-36-1 HCAPLUS

CN 1H-Imidazolium, 2,2'-[(1,6-hexanediylbis(imino[5-(acetylamino)-2,1-phenylene]azo)]bis[1,3-dimethyl-, difluoride (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

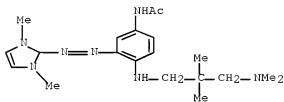
RN 866023-38-3 HCAPLUS

CN 1H-Imidazolium, 2-[2-[5-(acetylamino)-2-[[3-(dimethylamino)-2,2-dimethylpropyl]amino]phenyl]diazenyl]-1,3-dimethyl-, methyl sulfate (1:1) (CA INDEX NAME)

CM 1

CRN 866023-37-2

CMF C20 H32 N7 O



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 21228-90-0

CMF C H3 O4 S



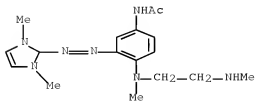
RN 866023-40-7 HCAPLUS

CN 1H-Imidazolium, 2-[2-[5-(acetylamino)-2-[methyl[2-(methylamino)ethyl]amino]phenyl]diazenyl]-1,3-dimethyl-, methyl sulfate (1:1) (CA INDEX NAME)

CM 1

CRN 866023-39-4

CMF C17 H26 N7 O



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me—O—SO₃⁻

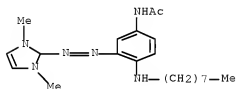
RN 866023-42-9 HCAPLUS

CN 1H-Imidazolium, 2-[2-[5-(acetylamino)-2-(octylamino)phenyl]diazonyl]-1,3-dimethyl-, methyl sulfate (1:1) (CA INDEX NAME)

CM 1

CRN 866023-41-8

CMF C21 H33 N6 O



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me—O—SO₃⁻

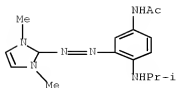
RN 866023-44-1 HCAPLUS

CN 1H-Imidazolium, 2-[2-[5-(acetylamino)-2-[(1-methylethyl)amino]phenyl]diazonyl]-1,3-dimethyl-, methyl sulfate (1:1) (CA INDEX NAME)

CM 1

CRN 866023-43-0

CMF C16 H23 N6 O



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 21228-90-0

CMF C H3 O4 S



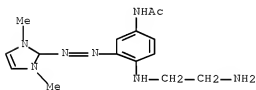
RN 866023-46-3 HCAPLUS

CN 1H-Imidazolium, 2-[2-[5-(acetylamino)-2-[(2-aminoethyl)amino]phenyl]diazonyl]-1,3-dimethyl-, methyl sulfate (1:1)
(CA INDEX NAME)

CM 1

CRN 866023-45-2

CMF C15 H22 N7 O



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 21228-90-0

CMF C H3 O4 S



RN 866023-48-5 HCAPLUS

CN 1H-Imidazolium, 2-[2-[5-(acetylamino)-2-[(2-

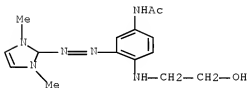
10/594,047

hydroxyethyl)amino]phenyl]diazenyl]-1,3-dimethyl-, methyl sulfate
(1:1) (CA INDEX NAME)

CM 1

CRN 866023-47-4

CMF C15 H21 N6 O2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 21228-90-0

CMF C H3 O4 S



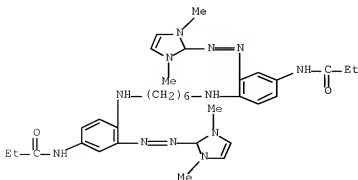
RN 866023-50-9 HCAPLUS

CN 1H-Imidazolium, 2,2'-[1,6-hexanediylbis[imino[5-[(1-oxopropyl)amino]-2,1-phenylene]azo]]bis[1,3-dimethyl-, bis(methyl sulfate) (9CI) (CA INDEX NAME)

CM 1

CRN 866023-49-6

CMF C34 H48 N12 O2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me—O—SO₃⁻

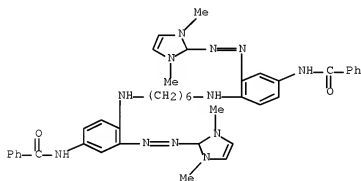
RN 866023-52-1 HCAPLUS

CN 1H-Imidazolium, 2,2'-[1,6-hexanediylbis[imino[5-(benzoylamino)-2,1-phenylene]azo]]bis[1,3-dimethyl-, bis(methyl sulfate) (9CI) (CA INDEX NAME)

CM 1

CRN 866023-51-0

CMF C42 H48 N12 O2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me—O—SO₃⁻

IC ICM C09B043-40

ICS A61K007-13; C07C231-02; C07C231-12; C07C245-20; C09B029-36;
C09B043-11; C09B044-00CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 41

IT 866023-27-9P 866023-31-6P 866023-32-7P

10/594,047

866023-33-8P 866023-34-9P 866023-35-0P
866023-36-1P 866023-38-3P 866023-40-7P
866023-42-9P 866023-44-1P 866023-46-3P
866023-48-5P 866023-50-9P 866023-52-1P

((aminoacylaminophenyl)azoimidazolium salts for hair dyes)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

=> d his nofile

(FILE 'HOME' ENTERED AT 14:53:18 ON 20 AUG 2008)

FILE 'HCAPLUS' ENTERED AT 14:53:30 ON 20 AUG 2008

L1 1 SEA ABB=ON PLU=ON US20070214580/PN
SEL RN

FILE 'REGISTRY' ENTERED AT 14:53:46 ON 20 AUG 2008

L2 36 SEA ABB=ON PLU=ON (107-15-3/BI OR 108-00-9/BI OR
111-86-4/BI OR 113596-04-6/BI OR 123-62-6/BI OR 124-09-4/BI
OR 141-43-5/BI OR 152666-75-6/BI OR 228425-41-0/BI OR
288-32-4/BI OR 2906-12-9/BI OR 351-32-6/BI OR 364-76-1/BI
OR 53369-71-4/BI OR 7328-91-8/BI OR 866023-27-0/BI OR
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866023-58-7/BI OR 98-88-4/BI)

L3 STR

L4 1 SEA SSS SAM L3

L5 STR L3

L6 33 SEA SSS SAM L5

L7 STR L5

L8 2 SEA SSS SAM L7

L9 18 SEA ABB=ON PLU=ON L2 AND 1H-IMIDAZOLIUM

FILE 'HCAPLUS' ENTERED AT 14:59:36 ON 20 AUG 2008

L10 4 SEA ABB=ON PLU=ON L9

FILE 'REGISTRY' ENTERED AT 14:59:54 ON 20 AUG 2008

L11 39 SEA SSS FUL L7

L12 15 SEA ABB=ON PLU=ON L11 AND L2

L13 3 SEA ABB=ON PLU=ON L9 NOT L12

FILE 'HCAPLUS' ENTERED AT 15:02:08 ON 20 AUG 2008

L14 5 SEA ABB=ON PLU=ON L11